## Commonwealth of Virginia

Department of Environmental Quality

# Solid Waste Managed in Virginia During Calendar Year 2001



### Solid Waste Managed in Virginia During Calendar Year 2001

#### EXECUTIVE SUMMARY

Section 10.1-1413.1 of the Code of Virginia requires the Department of Environmental Quality (Department) to prepare a report by June 30 of each year describing the amount of solid waste disposed of in the Commonwealth during the preceding calendar year. Facilities that have solid waste management permits are required to provide the Department with information to prepare this report. Two hundred and three (203) permitted facilities provided information on their activities for calendar year 2001.

Based on the facilities' reports, a total of 23,747,095 tons of solid waste was received at Virginia's permitted solid waste management facilities during calendar year 2001. Of this total, 18,927,629 tons originated in the Commonwealth, and 4,819,466 tons originated from other jurisdictions.

Municipal solid waste (MSW) constituted 14,884,106 tons of the total amount of solid waste received during calendar year 2001. Of the total MSW received, 10,785,422 tons originated in the Commonwealth, and 4,098,684 tons originated from other jurisdictions.

Four jurisdictions accounted for 93.3% of all waste received from out-of-state sources: Maryland; New York; Washington, D.C.; and North Carolina.

During calendar year 2001, the total solid waste and MSW received from out-of-state sources increased by 7.8% and 5.3%, respectively, over 2000. For Virginia sources during the same period, the total solid waste received increased by 9.3%, while the total MSW received increased by 1.2%. Compared with 1999, the total waste received from out-of-state sources has increased by 0.9%, and the total MSW received from out-of-state sources has decreased by 0.6%.

Of all solid waste managed in Virginia during the year (except for waste that was only sent off site), 82.3% - 15,823,785 tons - was landfilled, 11.5% was incinerated, and the rest was managed by other means. Of all solid waste received at Virginia facilities during the year, 62.7% was MSW, 17.9% was construction/demolition/debris (CDD) waste, and the remainder was other types of waste.

Permitted solid waste management facilities reported that they recycled 3.9% of the waste that they managed (except for waste that was only sent off site). Most recycling, however, occurs at facilities other than permitted waste management facilities. Local governments provide more complete information on the recycling of waste generated in Virginia. Based on the reported rates of 89% of Virginia localities, the preliminary statewide recycling rate for calendar year 2001 was 36.6%. A final report on the statewide recycling rate for 2001 will be issued later in the year.

This year, for the first time, permitted facilities reported on their available capacity and the expected life of the facilities based on current disposal rates. This information shows that at current rates the remaining available landfill capacity is as follows: MSW - 18.3 years; CDD - 8.3 years; non-captive industrial - 16.2 years; and total - 16.4 years. These projections do not account for population increases, changes in waste generation or disposal rates, or the closing of older MSW disposal units pursuant to statute.

The statute provides that, at the option of the facility owner, the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located. No facilities provided such information for calendar year 2001.

### Solid Waste Managed in Virginia During Calendar Year 2001

#### I. INTRODUCTION

This report has been prepared in accordance with Virginia Code § 10.1-1413.1, which requires the Department to prepare a report by June 30 of each year describing the amount of solid waste disposed of in the Commonwealth during the preceding calendar year (see Attachment 1). All permitted facilities (except for captive waste management facilities) that treat, store, or dispose of solid waste are required to provide the Department with information in their possession as is reasonably necessary for the Department to prepare this report. The statutory reporting requirements have been clarified and supplemented by regulation in 9 Virginia Administrative Code (VAC) 20-80-115 and 20-130-165 (Attachments 2 and 3).

#### II. REPORTING PROCEDURES

For each category of solid waste, permitted solid waste facilities in Virginia were asked to report the amount of waste that they received, the method by which the waste was managed, and the jurisdiction where the waste originated, if known. A copy of the reporting table used to furnish information to the Department is provided as Attachment 4.

The facilities identified amounts of solid waste by each of the following categories:

- municipal solid waste (MSW);
- construction and demolition debris (CDD):
- industrial waste:
- regulated medical waste (RMW);
- vegetative and yard waste (VW/YW);
- incineration ash;
- sludge other than is land applied in accordance with Virginia Code § 32.1-164.5;
- tires:
- white goods (e.g., refrigerators, washing machines);
- friable asbestos;
- petroleum-contaminated soil (PCS); and
- other waste.

The facilities also reported on each of the following methods of waste management:

- recycling;
- composting;
- landfilling;

<sup>&</sup>lt;sup>1</sup> Attachments may be found after the Tables and Figures, at the end of this report.

- incineration;
- sending off-site for further management;
- storing on-site; and
- other.

This report does not wholly represent Virginia's waste management activities, because the statute exempts all captive waste management facilities from the reporting requirements. Currently, all captive waste management facilities in Virginia are captive industrial landfills.<sup>2</sup> As a result, the reported amounts of industrial waste and sludge represent only the portion that is managed in off-site facilities. Also, the report does not reflect tires managed under the Waste Tire Trust Fund at facilities that do not require a permit.

Permitted solid waste management facilities reported that they recycled 3.9% of the waste that they managed (except for waste that was only sent off site). Most recycling, however, occurs at facilities other than permitted waste management facilities. Local governments provide more complete information on the recycling of waste generated in Virginia. Based on the reported rates of 89% of Virginia localities, the preliminary statewide recycling rate for calendar year 2001 was 36.6%. A final report on the statewide recycling rate for 2001 will be issued later in the year.

#### III. RECEIPT OF ASSESSMENT REPORTS

By regulation, facilities must submit their reporting tables by March 31 of each year. Facilities are required to submit a separate reporting table for each jurisdiction from which they received waste. Information from all reporting tables received on or before June 5, 2002, has been included in this report. Two hundred and three (203) facilities reported on their activities for calendar year 2001 (compared to 190 facilities reporting for calendar year 2000). A list of these facilities is provided as Attachment 5. These facilities submitted a total of 368 separate reporting tables, representing waste received from 23 states (including Virginia); Washington, D.C.; Canada; and Puerto Rico.

#### IV. DISCUSSION OF REPORTED RESULTS

Table 1 summarizes the quantities of waste that facilities received and managed during calendar year 2001, by waste type and management method. As shown in the table, 23,747,095 tons of solid waste were received at Virginia's permitted solid waste management

<sup>&</sup>lt;sup>2</sup> Captive industrial landfill means an industrial landfill that is located on property owned or controlled by the generator of the waste disposed in that landfill.

<sup>&</sup>lt;sup>3</sup> Throughout this report, percentages have been rounded to the nearest 0.1%. In the text of the report and in the figures, tonnages have been rounded to the nearest ton, except that a partial ton may be rounded down to the next lowest ton to account for the addition of multiple, partial tons.

<sup>&</sup>lt;sup>4</sup> Local governments (or their designated solid waste management planning regions) are required to file annual reports on recycling rates pursuant to the Regulations for Solid Waste Management Planning, 9 VAC 20-130.

facilities during calendar year 2001. Municipal solid waste (MSW) constituted 14,884,106 tons of the total amount of solid waste received.<sup>5</sup>

The column of Table 1 entitled "Landfilled" indicates the quantity of solid waste disposed of at permitted solid waste landfills in the Commonwealth during calendar year 2001. The amount of solid waste landfilled during the year was 15,823,785 tons. This was an increase of 6.9% from 14,801,832 tons landfilled in calendar year 2000. The other columns of Table 1 indicate the quantity of waste managed by other methods. The column entitled "Sent Off-Site" indicates the quantity of waste that was sent off-site in calendar year 2001 to be managed elsewhere (4,536,095 tons). If this waste was sent off-site to another permitted Virginia facility, it would also be included in the receiving facility's reporting tables (i.e., if the waste is received at two, separate Virginia-permitted facilities, it may be counted twice as received waste).

Figure 1 shows the percentage of each method of solid waste management. The majority of solid waste managed in the Commonwealth during the year, excluding the amount that was sent off-site, was landfilled (82.3% of all waste managed) or incinerated (11.5%). Lesser amounts were recycled (3.9%), composted (1.1%), stored on site (0.8%), or managed by other methods (0.4%).

Figure 2 shows the composition of the solid waste stream. Of all solid waste received at Virginia facilities in calendar year 2001, 62.7% was MSW, 17.9% was CDD waste, and the remainder was other types of waste. These included incineration ash (4.3%), industrial waste (3.7%), other types of waste (3.5%), VW/YW (3.3%), sludge (2.6%), and PCS (1.0%).

Table 2 shows the quantities of solid wastes imported from outside Virginia. Four jurisdictions account for 93.3% of all waste sent from out-of-state sources to Virginia: Maryland (35.7%); New York (25.8%); Washington, D.C. (21.4%); and North Carolina (10.5%). Figure 3 illustrates the total quantity of waste received from individual jurisdictions.

Figure 4 compares the amount of waste received at facilities from out-of-state jurisdictions to the amount received from Virginia during calendar year 2001. Of the total amount of solid waste received (23,747,095 tons), 18,927,629 tons originated in the Commonwealth, and 4,819,466 tons originated from other jurisdictions. Of the total MSW received (14,844,106 tons), 10,785,422 tons originated in the Commonwealth, and 4,098,684 tons originated from other jurisdictions.

Figure 5 shows a comparison of total solid waste received in 1998 through 2001 for both Virginia and out-of-state sources. Figure 6 shows the same comparison for MSW. During calendar year 2001, the total solid waste and MSW received from out-of-state sources

Solid Waste Managed in Virginia - 2001

<sup>&</sup>lt;sup>5</sup> In Table 1, the amount of waste "Received" for each type of waste may not match the sum of the amounts identified for each method of waste management. This reflects information as submitted by facilities in the reporting tables. When referring to information from Table 1, "waste received" refers to information from the first column, and "waste managed" refers to information from the remaining columns.

<sup>&</sup>lt;sup>6</sup> Each of these numbers, including the total, has been rounded to the nearest 0.1%.

increased by 7.8% and 5.3%, respectively, over 2000. For Virginia sources during the same period, the total solid waste received increased by 9.3%, while the total MSW received increased by 1.2%. Compared with 1999, the total waste received from out-of-state sources has increased by 0.9%, and the total MSW received from out-of-state sources has decreased by 0.6%.

This report does not reflect the amount of solid waste exported from Virginia to other states, because the Department regulates only the treatment, storage, and disposal of solid waste within the Commonwealth. Virginia facilities, waste generators, and localities are not required to submit information on the amount of solid waste exported to other states.

This year, for the first time, landfills were required to report on their available capacity and the expected life of the facilities at the current disposal rates. A summary of this information is shown in Table 3, and more detailed information is in Attachment 6. MSW landfills reported a total available capacity of 228,855,109 tons and a current disposal rate of 12,478,525 tons per year. Thus, at the current disposal rate, there would be 18.3 years of available MSW landfill capacity in the Commonwealth. However, this calculation does not account for population changes, changes in waste generation or disposal rates, or the closing of older MSW disposal units under Va. Code § 10.1-1413.2. CDD landfills reported a total available capacity of 24,558,462 tons and a current disposal rate of 2,968,611 tons per year. At the current disposal rate, there would be 8.3 years of available CDD landfill capacity in the Commonwealth. For non-captive industrial landfills, there are 6,097,200 tons of available capacity and a current disposal rate of 376,649 tons per year (16.2 years). In total, there are 259,510,771 tons of available capacity and a current disposal rate of 15,823,785 tons per year (16.4 years).

The statute provides that, at the option of the facility owner, the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located. This may include the value of disposal and recycling facilities provided to the locality at no cost or reduced cost, direct employment associated with the facility, and other economic benefits resulting from the facility during the preceding calendar year. No facilities provided such information for calendar year 2001.

<sup>&</sup>lt;sup>7</sup> In November 1999, the Department submitted a legislative study entitled "Comprehensive Evaluation of Solid Waste Management in the Commonwealth - Interim Report." That report estimated conservatively that there was 14 years MSW capacity remaining at that time. The 1999 study was based on responses by 41 facilities to a survey, information from Department databases, and capacity estimates. The 1999 study also included a factor for increased population in Virginia. The data in this report is based entirely on facility responses, and does not consider projected population growth.

Table 1. Solid Waste Managed in Virginia - 2001 (in Tons)

Waste Type/Method	Received <sup>8</sup>	Recycled <sup>9</sup>	Composted	Landfilled	Incinerated	Sent off Site	Stored on Site	Other <sup>10</sup>
Municipal Solid Waste	14,884,106.38	46,340.86	0.00	9,180,377.89	2,136,949.09	3,524,688.95	4,350.00	0.00
Construction / Demolition/ Debris	4,256,645.20	76,521.68	5,524.80	3,760,364.15	0.00	411,890.50	2,344.00	0.00
Industrial Waste	888,022.08	52,825.10	0.00	780,718.35	0.00	54,467.64	11.00	0.00
Regulated Medical Waste	21,131.99	0.00	0.00	0.00	6,667.90	6,893.94	0.00	7,570.15
Vegetative/Yard Waste	784,804.62	202,154.45	208,130.53	73,761.10	24,718.54	183,153.62	95,291.69	0.00
Incineration Ash	1,014,556.65	0.00	0.00	907,415.48	0.00	104,303.17	2,838.00	0.00
Sludge	606,829.41	12,785.63	296.05	584,548.76	7,997.68	867.79	334.00	0.00
Tires	165,874.64	9,525.45	0.00	4,051.61	15,567.50	57,220.60	39,650.69	40,072.01
White Goods	45,166.19	18,058.67	0.00	485.27	0.00	26,258.71	550.54	0.00
Friable Asbestos	14,076.77	0.00	0.00	13,909.01	0.00	167.76	0.00	0.00
Petroleum Contaminated Soil	233,914.75	85,404.09	0.00	106,002.96	0.00	19,099.70	2,958.00	20,450.00
Other Waste	831,966.57	243,638.13	0.00	412,150.00	20,427.06	147,082.29	8,859.00	0.00
Totals:	23,747,095.25	747,254.06	213,951.38	15,823,784.58	2,212,327.77	4,536,094.67	157,186.92	68,092.16

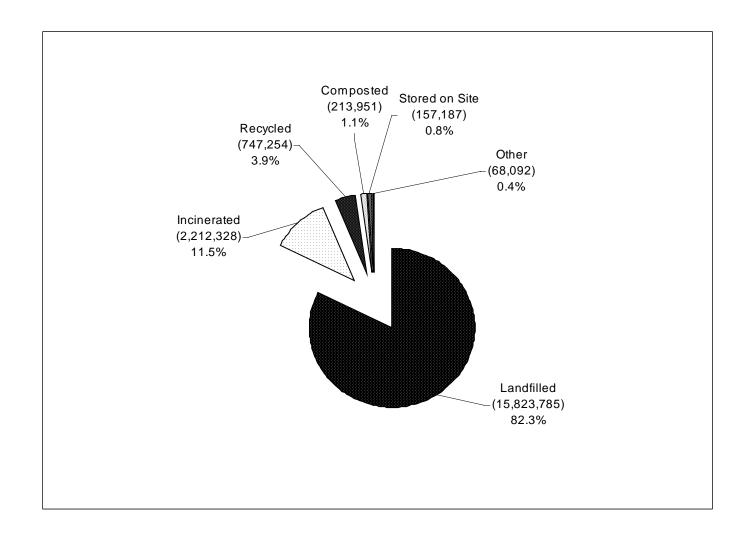
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<sup>&</sup>lt;sup>8</sup> The amount of waste "Received" may not precisely match the sum of the amounts for each method of management. This discrepancy reflects information submitted in the reporting tables.

<sup>9</sup> The majority of recycling takes place at facilities that do not require a permit from the Department and were not required to submit data for this report. Therefore, the amounts shown in this column represent a substantial underestimate of the true recycling rate in the Commonwealth. Based on the reported rates of 89% of Virginia localities, the preliminary statewide recycling rate for calendar year 2001 was 36.6%. A final report on the statewide recycling rate for 2001 will be issued later in the year.

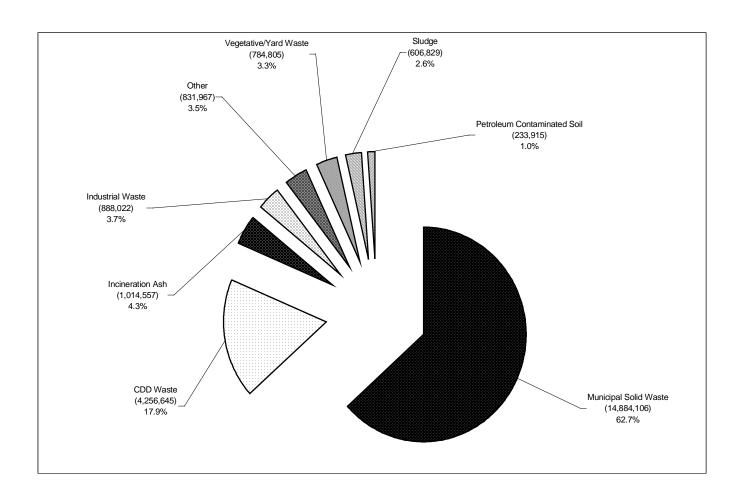
<sup>10 &</sup>quot;Other" methods of management may include steam sterilization of medical waste, approved use of tire shred at permitted facilities, and thermal treatment of PCS, among others.

Figure 1. Methods of Solid Waste Management – 2001 (in Tons)



The amount of solid waste "Sent Off-Site" is not included in this table's percentages. Most recycling, however, occurs at facilities other than permitted waste management facilities. As a result, more accurate recycling information is reported by localities. Based on the reported rates of 89% of Virginia localities, the preliminary statewide recycling rate for calendar year 2001 was 36.6%. A final report on the statewide recycling rate for 2001 will be issued later in the year.

Figure 2. Composition of the Solid Waste Stream – 2001 (in Tons)



Note: This chart does not include waste streams comprising less than 1% of the total waste stream. This includes Tires (0.7%), White Goods (0.2%), Regulated Medical Waste (<0.1%), and Friable Asbestos (<0.1%).

## **Table 2. Jurisdiction of Origin of Waste Received - 2001 (in Tons)**

Originating State	Municipal Solid Waste	Construction / Demolition Debris	Industrial Waste	Regulated Medical Waste	Vegetative / Yard Waste	Incineration Ash	Sludge	Tires	White Goods	Friable Asbestos	Petroleum Contaminated Soil	Other Waste	Total
Alabama												1.10	1.10
Canada				808.80								58.68	867.48
Connecticut												65.52	65.52
DC	936,386.95	71,867.33	2,507.86	159.30		5.50	17,595.16	82.32	84.05	1,137.24	298.15	554.98	1,030,678.84
Delaware	29,986.70		17.16									117.87	30,121.73
Florida			37.25									167.24	204.49
Georgia	189.00		99.25									159.54	447.79
Illinois	384.00		3,203.40									140.95	3,728.35
Indiana	227.00											115.48	342.48
Kentucky	739.00		259.00										998.00
Maryland	1,443,723.68	42,962.02	11,590.79	2,595.00		153,181.04	46,615.01	4,930.16	60.05	724.00	8,889.93	3,196.14	1,718,467.82
Massachusetts	180.00		4.39									559.57	743.96
Michigan	64.00											170.36	234.36
Minnesota												32.71	32.71
Missouri												78.15	78.15
N. Carolina	486,942.15	989.21	3,629.37	1,279.85	131.40		298.00	196.34		61.96	8,941.01	2,310.22	504,779.51
New Jersey	2,455.75		11,840.58	247.20			158,260.59				6.31	770.35	173,580.78
New York	1,120,110.66	31.99	28,682.20	250.30			93,592.33				3.42	56.48	1,242,727.38
Ohio	1,839.00		58.24									48.43	1,945.67
Pennsylvania	7,036.72		162.90	2,414.00							4.15	233.74	9,851.51
Puerto Rico												42.05	42.05
S. Carolina	95.00		2,144.57				846.00				21,214.84	305.74	24,606.15
Tennessee	28,772.61	1,475.91	541.62		590.00			120.17	2.76		2,648.80	173.95	34,325.82
Texas												11.92	11.92
W. Virginia	39,551.67		7.36	28.40				114.23		22.40	15.78	842.32	40,582.16
Totals for Other States	4,098,683.89	117,326.46	64,785.94	7,782.85	721.40	153,186.54	317,207.09	5,443.22	146.86	1,945.60	42,022.39	10,213.49	4,819,465.73
VA	10,785,422.48	4,139,318.74	823,236.14	13,349.14	784,083.22	861,370.11	289,622.32	160,431.42	45,019.33	12,131.17	191,892.36	821,753.08	18,927,629.52
Total for all States:	14,884,106.38	4,256,645.20	888,022.08	21,131.99	784,804.62	1,014,556.65	606,829.41	165,874.64	45,166.19	14,076.77	233,914.75	831,966.57	23,747,095.25

Figure 3. Waste Received from Out-of-State Jurisdictions (in Tons) - 2001

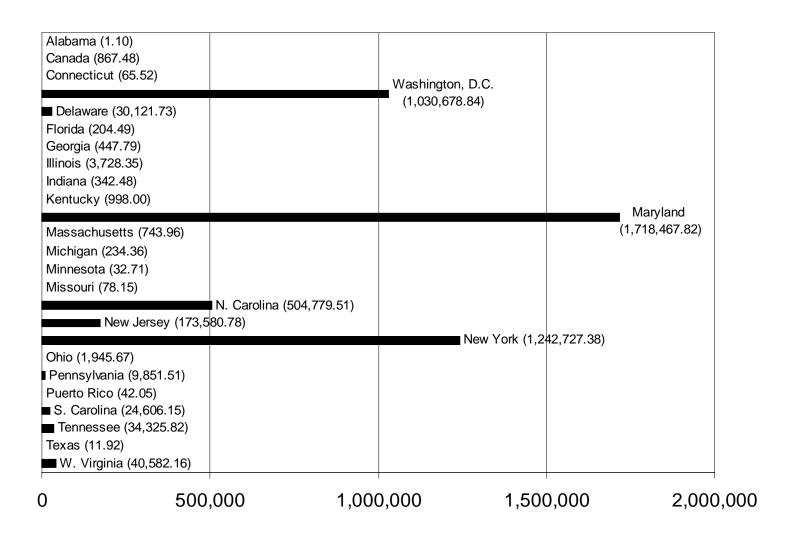


Figure 4. Quantity of Solid Waste Received in Virginia - 2001

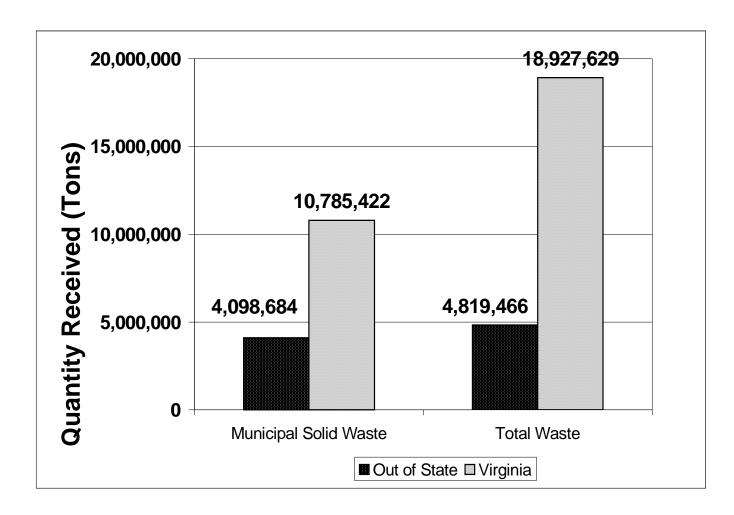


Figure 5. Comparison of Total Solid Waste Received From 1998 Through 2001

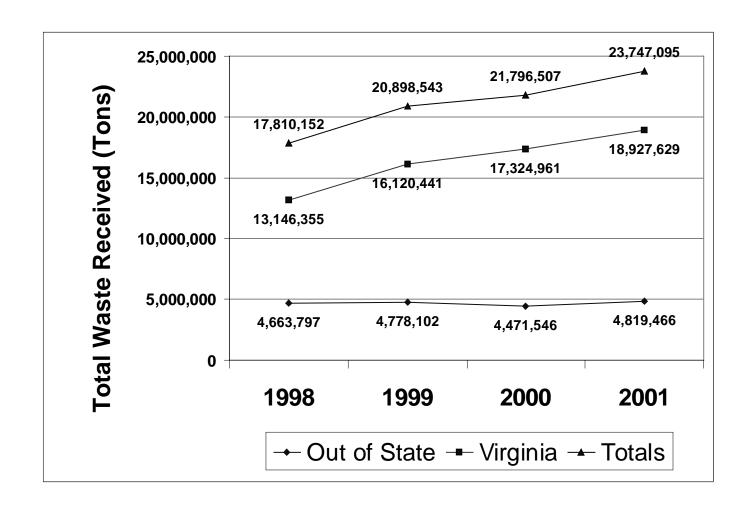
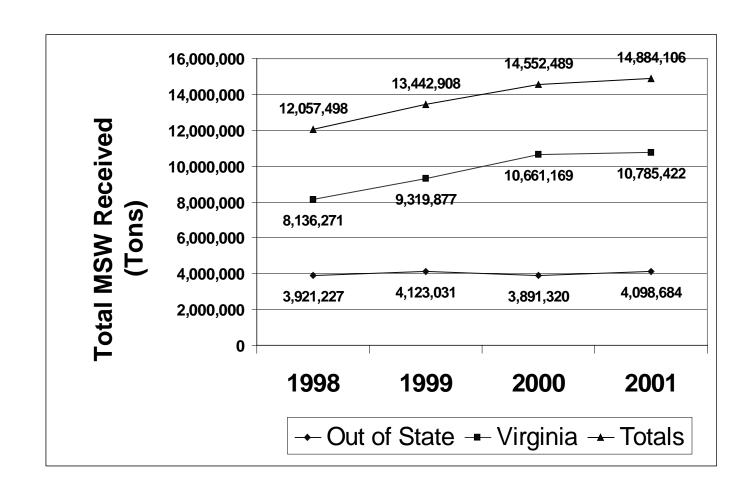


Figure 6. Comparison of Municipal Solid Waste Received From 1998 Through 2001



**Table 3. Summary of Available Capacity in Permitted Disposal Facilities – 2001 (in Tons)** 

Facility Type	Reported Available	Reported Annual	Remaining Permitted
J J1	Capacity 2001	Disposal Rate 2001	Capacity (Years)
Sanitary (MSW) Landfills	228,855,109	12,478,525	18.3
C/D/D Landfills	24,558,462	2,968,611	8.3
Non-Captive Industrial Landfills	6,097,200	376,649	16.2
Totals:	259,510,771	15,823,785	16.4

# Virginia Code § 10.1-1413.1 - Waste information and assessment program

A. The Department shall report by June 30 of each year the amount of solid waste, by weight or volume, disposed of in the Commonwealth during the preceding calendar year. The report shall identify solid waste by the following categories: (i) municipal solid waste; (ii) construction and demolition debris; (iii) incinerator ash; (iv) sludge other than sludge that is land applied in accordance with § 32.1-164.5; and (v) tires. For each such category the report shall include an estimate of the amount that was generated outside of the Commonwealth and the jurisdictions where such waste originated, if known. The report shall also estimate the amount of solid waste managed or disposed of by each of the following methods: (i) recycling; (ii) composting; (iii) landfilling; and (iv) incineration.

B. All permitted facilities that treat, store or dispose of solid waste shall provide the Department not more than annually, upon request, with such information in their possession as is reasonably necessary to prepare the report required by this section. At the option of the facility owner, the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located including the value of disposal and recycling facilities provided to the locality at no cost or reduced cost, direct employment associated with the facility, and other economic benefits resulting from the facility during the preceding calendar year. No facility shall be required pursuant to this section to provide information that is a trade secret as defined in § 59.1-336.

C. This section shall not apply to captive waste management facilities.

# 9 Virginia Administrative Code 20-80-115 - Solid waste information and assessment program

A. The owners or operators of all permitted facilities that treat, store, or dispose of solid waste shall report by March 31 of each year the amount of solid waste, by weight or volume, received and managed by the facility during the preceding calendar year. The report shall identify solid waste by the following categories: (i) municipal solid waste; (ii) construction and demolition debris; (iii) industrial waste; (iv) regulated medical waste; (v) vegetative and yard waste; (vi) incinerator ash; (vii) sludge other than sludge that is land applied in accordance with §32.1-164.5; (viii) tires; (ix) white goods; (x) friable asbestos; (xi) petroleum contaminated soil; and (xii) other special waste. For each such category the report shall include an estimate of the amount that was generated outside of the Commonwealth and the jurisdictions where such waste originated. The report shall also estimate the amount of solid waste managed or disposed of by each of the following methods: (a) recycling; (b) composting; (c) landfilling; (d) incineration (e) sending off-site for further management; and (f) stored on site on December 31 of the reporting year.

B. At the option of the facility owner, the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located including the value of disposal and recycling facilities provided to the locality at no cost or reduced cost, direct employment associated with the facility, and other economic benefits resulting from the facility during the preceding calendar year.

C. No facility shall be required pursuant to this section to provide information that is a trade secret as defined in § 59.1-336.

D. The reporting form to be used to fulfill the reporting requirement of this part is DEQ Form 50-25, which is available in the Regulations for the Development of Solid Waste Management Plans (9 VAC 20-130-10 et seq.).

E. This section shall not apply to captive waste management facilities including captive industrial landfills.

# 9 Virginia Administrative Code 20-130-165 - Waste information and assessment program

A. The owners or operators of all permitted facilities that treat, store, or dispose of solid waste shall report by March 31 of each year the amount of solid waste, by weight or volume, received and managed in the Commonwealth during the preceding calendar year. The report shall identify solid waste by the following categories: (i) municipal solid waste; (ii) construction and demolition debris; (iii) industrial waste; (iv) regulated medical waste; (v) vegetative and yard waste; (vi) incinerator ash; (vii) sludge other than sludge that is land applied in accordance with § 32.1-164.5 of the Code of Virginia; (viii) tires; (ix) white goods; (x) friable asbestos; (xi) petroleum contaminated soil; and (xii) other special waste. For each such category the report shall include an estimate of the amount that was generated outside of the Commonwealth and the jurisdictions where such waste originated.

The report shall also estimate the amount of solid waste managed or disposed of by each of the following methods: (i) recycling; (ii) composting; (iii) landfilling; (iv) incineration (v) sending off site for further management; and (vi) stored on site on December 31 of the reporting year. This section shall not apply to captive waste management facilities. The report is to be sent to the department regional office for the facility's location.

Information on the available capacity and expected life of the facilities at the disposal rates submitted in this subsection shall be included in the annual report required by this section.

- B. At the option of the facility owner, the data collected may include an accounting of the facility's economic benefits to the locality where the facility is located including the value of disposal and recycling facilities provided to the locality at no cost or reduced cost, direct employment associated with the facility, and other economic benefits resulting from the facility during the preceding calendar year.
- C. No facility shall be required pursuant to this section to provide information that is a trade secret as defined in §59.1-336 of the Code of Virginia.
- D. Every city, county and town in the Commonwealth, or solid waste management planning region approved pursuant to 9 VAC 20-130-180, shall submit to the department by April 30 of each year, the data and calculations required in 9 VAC 20-130-120 B and C.

I. <u>For</u>	rm DEQ	50-25 Sc	olid Waste I	nformation	and Assessm	ent Progran	n- Reporting	<b>Table</b>		
Facility Name						_ 1	Permit No.			
Date Submitted to DEQ				Annual Re	porting Perio	d:				
Available Permitted Capacity			Total A	Annual Dispo	osal Rate			Expected 1	Remaining Perm	nitted Life
II. Originating Jurisdiction (ie. State):			Ī	Is	Jurisdiction	Outside Virg	inia? YES	N	(O	
	Uı	nits			Wa	aste Managem	ent- Report An	nount by Weight	or Volume	
Waste Type	(chec	ck one) (REPORTING UNITS MUST BE CONSISTENT FOR ALL FIELDS OF A P. YARDS. NOT BOTH)			S OF A PARTIC	ΓΙCULAR WASTE TYPE, USE TONS OR CUBIC				
	Tons	cu.yds	Received	Recycled	Composted	Landfilled	Incinerated	Sent off site	Stored on site	Other:
Municipal Solid Waste										
Construction/ Demolition/Debris										
Industrial Waste										
Regulated Medical Waste										
Vegetative/Yard Waste										
Incineration Ash										
Sludge*										
Tires										
White Goods										
Friable Asbestos										
Petroleum Contaminated Soil										
Other Waste(specify):										

NOTE: Report each different jurisdiction on a separate page

Revised 6/6/00

<sup>\*</sup>Sludge other than that applied to the land in accordance with § 32.1-164.

### **Attachment 5 List of Facilities Reporting - 2001**

Facility	Permit Number	DEQ Region*
623 C/D/D Landfill	506	PRO
623 Landfill	PBR009	PRO
Accomack County Sanitary Landfill Bobtown South	091	TRO
Accomack County Sanitary Landfill Northern Site #2	461	TRO
Accomack Northern Landfill Bailer/Transfer Station	PBR112	TRO
Accomack Southern Landfill Solid Waste RCV & Baling Facility	PBR090	TRO
Alleghany County Transfer Station	PBR103	WCRO
American Waste Industries Inc. (AWI)	871-I	TRO
American Waste Industries Inc. (AWI)	PBR114	TRO
Amherst County Sanitary Landfill	563	SCRO
Appomattox County Baling Facility	PBR163	SCRO
Appomattox County Sanitary Landfill	086	SCRO
Ashcake C/D/D Landfill	574	PRO
Atlantic Waste Disposal Sanitary Landfill	562	PRO
Augusta County / Staunton Sanitary Landfill No. 2	585	VRO
Augusta County Service Authority Sanitary Landfill	021	VRO
Bath County Transfer Station	PBR045	VRO
Bedford County Sanitary Landfill	560	WCRO
Bedford County Transfer Station	PBR031	WCRO
BFI Fluvanna County Transcyclery	PBR099	VRO
BFI Fredericksburg Recyclery	PBR107	NVRO
BFI Old Dominion Sanitary Landfill	553	PRO
BFI Roanoke Valley Materials Recovery Facility	PBR105	WCRO
BFI Transcyclery	PBR077	TRO
Big Bethel Sanitary Landfill	580	TRO
Blue Ridge Disposal Inc.	PBR104	WCRO
Boissevain Transfer Station	PBR004	SWRO
Botetourt County Sanitary Landfill	582	WCRO
Bristol Quarry Balefill	588	SWRO
Bristol Vegetative Waste Management Facility	PBR156	SWRO
Bristol Woody Waste Incinerator	PBR074	SWRO
Brunswick Waste Management Facility	583	PRO
Buchanan County Solid Waste Transfer Station	PBR106	SWRO
Bull Hill Transfer Station	PBR029	SWRO

#### \*Regional Offices

NVRO - Northern Virginia PRO - Piedmont TRO - Tidewater VRO - Valley SCRO - South Central SWRO - Southwest

Facility	Permit Number	DEQ Region*
Camp Peary Armed Forces ETA Transfer Station	PBR097	TRO
Campbell County Sanitary Landfill	285	SCRO
Caroline County Sanitary Landfill	182	NVRO
Carroll-Grayson-Galax Regional Sanitary Landfill	508	SWRO
Cedar Bluff Transfer Station	PBR002	SWRO
Charles City Tire Recycling Facility	557	PRO
Chesterfield - N Waste Tire Transfer Station	PBR082	PRO
Chesterfield - S Waste Tire Transfer Station	PBR083	PRO
City of Bedford (Hylton Site)	569	WCRO
City of Bristol Materials Recovery Facility	PBR116	SWRO
City of Bristol Solid Waste Transfer Station	PBR121	SWRO
City of Danville Transfer Station	PBR015	SCRO
City of Newport News YW Composting	PBR096	TRO
City of Richmond Hopkins Road Transfer Station	PBR160	PRO
City of Salem Transfer Station	PBR028	WCRO
Classified Waste Disposal System at CIA	PBR173	NVRO
Cogentrix	PBR150	PRO
Con-Serv Ind.	PBR102	NVRO
Corral Farm Sanitary Landfill	575	NVRO
Country South	581	WCRO
County of Frederick CDD Landfill	591	VRO
Covanta Alexandria/Arlington	435	NVRO
Covanta Fairfax	510	NVRO
Cox's Charles City Road Landfill Inc.	235	PRO
Cox's Darbytown Road Landfill Inc.	525	PRO
Craney Island Landfill	041	TRO
Craney Island Material Recovery Facility	PBR061	TRO
Culpeper Co. Transfer Station	PBR140	NVRO
Dickenson County Waste Transfer Station	PBR049	SWRO
Dinwiddie County Transfer Station	PBR137	PRO
Environmental Options Inc. Transfer Station	PBR153	WCRO
Fauquier County Sanitary Landfill	149	NVRO
First Piedmont Corp Martinsville Landfill	065	SCRO
Floyd County SW Transfer Station	PBR050	WCRO
Fluvanna County Sanitary Landfill	429	VRO
Franklin County Sanitary Landfill	072	WCRO
Frederick County Sanitary Landfill	529	VRO

NVRO - Northern Virginia PRO - Piedmont TRO - Tidewater VRO - Valley SCRO - South Central SWRO - Southwest

_Facility _	Permit Number	DEQ Region*
Garner Tire Comp. MRF	PBR127	WCRO
Goochland County Transfer Station	PBR023	PRO
Greene County MRF & Co - Compost	568	VRO
Greensville County Sanitary Landfill	405	PRO
Hanover County Sanitary Landfill	314	PRO
Harrisonburg Resource Recovery Facility	390	VRO
Higgerson-Buchanan Inc.	493	TRO
Hilltop Sand & Gravel Co. Inc. Debris Landfill	326	NVRO
Holland Enterprises Landfill	280	TRO
I-66 Transfer Station	387	NVRO
I-95 Sanitary Landfill	103	NVRO
Independent Hill Sanitary Landfill	029	NVRO
Indian Trail Disposal Facility	451	TRO
Indian Trail Disposal Facility MRF	PBR166	TRO
Industrial Resource Technologies	PBR115	PRO
Ivy Landfill Transfer Station	PBR132	VRO
Ivy Sanitary Landfill	125	VRO
Joint Public Service Authority Transfer Station	PBR048	TRO
King and Queen Sanitary Landfill	554	PRO
King George County Sanitary Landfill and Recycling Facility	586	NVRO
LCM Transfer Station	PBR136	WCRO
Lee County Solid Waste Transfer Station	PBR070	SWRO
Livingston Sanitary Landfill No. 2	547	NVRO
Lorton CDD Landfill - Furnace Road	331	NVRO
Loudoun County Sanitary Landfill	001	NVRO
Loudoun Yard Waste Composting Facility	PBR141	NVRO
Louisa County Sanitary Landfill	194	NVRO
Lunenburg County Sanitary Landfill	227	SCRO
Lynchburg Sanitary Landfill	558	SCRO
Madison County Transfer Station	PBR154	NVRO
Manassas Transfer Station	PBR091	NVRO
Maplewood Recycling & Waste Disposal Facility	540	PRO
Martinsville Sanitary Landfill	049	WCRO
Maumee Express Inc. MRF	PBR122	SWRO
Mecklenburg County Sanitary Landfill	014	SCRO
Merillat Ind. Inc. Energy Recovery Facility	PBR161	SWRO
Metalpro Inc. Material Recovery Facility	PBR152	NVRO

NVRO - Northern Virginia PRO - Piedmont TRO - Tidewater VRO - Valley SCRO - South Central SWRO - Southwest

<b>Facility</b>	Permit Number	DEQ Region*
Mid-County Sanitary Landfill - Montgomery County	397	WCRO
Middle Peninsula Sanitary Landfill and Recycling Center	572	PRO
Middle Peninsula Transfer Station	PBR037	PRO
Middle Peninsula Yard Waste Composting	PBR125	PRO
Montgomery Regional Solid Waste Authority Transfer ST	PBR149	WCRO
Montgomery RSWA Tire Storage Facility	PBR169	WCRO
NASA - Langley Resource Recovery Facility Hampton	297	TRO
Nelson County Transfer Station	PBR051	VRO
Newport News, Yard Waste Composting Facility No. 2	PBR110	TRO
Norfolk Navy Shipyard Building 1460	PBR135	TRO
Northampton County Sanitary Landfill - Oyster Site	507	TRO
Nottoway County Sanitary Landfill	304	SCRO
NRRA Solid Waste Facility	548	WCRO
Orange County Sanitary Landfill	090	NVRO
Page County Sanitary Landfill	579	VRO
Patrick County Solid Waste Transfer Station	PBR032	WCRO
Peters Mountain Sanitary Landfill #2	594	WCRO
Petersburg City Sanitary Landfill	228	PRO
Pittsylvania County Sanitary Landfill	571	SCRO
Potomac CDD MRF	PBR101	NVRO
Potomac Landfill	441	NVRO
Prince Edward County Sanitary Landfill	584	SCRO
Prince William County YWCF Balls Ford Rd.	PBR030	NVRO
Purgo Inc (Form. Weyerhauser)	PBR046	PRO
Qualla Road Demo Landfill	516	PRO
Rainwater Concrete Co. Landfill	327	NVRO
Rappahannock County Sanitary Landfill	520	NVRO
Rappahanock Reg. Solid Waste Mgt. Bd. Sanitary Landfill	589	NVRO
Reclamation Inc.	PBR062	TRO
RECO Industries Inc.	592	PRO
RECO Industries Inc.	PBR052	PRO
Roanoke Transfer Station	546	WCRO
Rockbridge County Bailing Facility	PBR071	VRO
Rockbridge County Sanitary Landfill - Buena Vista	075	VRO
Rockingham County Sanitary Landfill	062	VRO
Russell County Solid Waste Transfer Station	PBR001	SWRO
Safety Kleen Systems Inc Vinton Transfer Station	PBR080	WCRO

NVRO - Northern Virginia PRO - Piedmont TRO - Tidewater VRO - Valley SCRO - South Central SWRO - Southwest

Facility	Permit Number	DEQ Region*
Safety Kleen Systems Inc Chesapeake Transfer Station	PBR078	TRO
Safety Kleen Systems Inc Chester Transfer Station	PBR079	PRO
Safety Kleen Systems Inc Manassas Transfer Station	PBR086	NVRO
Scott County Sanitary Landfill	023	SWRO
Shenandoah County Sanitary Landfill	469	VRO
Shoosmith Debris Landfill	377	PRO
Shoosmith Sanitary Landfill	587	PRO
Simons Hauling Co Darbytown	PBR027	PRO
Simons Hauling Debris Landfill	524	PRO
Smith Gap Regional Sanitary Landfill	555	WCRO
Smyth County Transfer Station	PBR041	SWRO
Soilex Corp Suffolk	PBR155	TRO
Soilex PCS Remediation Facility.	PBR075	TRO
South Boston Sanitary Landfill	031	SCRO
Springfield Road Sanitary Landfill	545	PRO
SPSA - Ballentine Transfer Station	421	TRO
SPSA - Boykins Transfer Station	484	TRO
SPSA - Chesapeake Transfer Station	425	TRO
SPSA - ERF Power Plant	482	TRO
SPSA - Franklin Transfer Station	438	TRO
SPSA - Isle of Wight Transfer Station	494	TRO
SPSA - Ivor Transfer Station	539	TRO
SPSA - LandsTown Transfer Station	537	TRO
SPSA - Refuse Derived Fuel Plant	455	TRO
SPSA - Regional Sanitary Landfill	417	TRO
SPSA - Virginia Beach Transfer Station #1	396	TRO
SPSA - Tire Processing Facility	PBR072	TRO
SPSA - YWCF at SPSA'S Regional Landfill in Suffolk	PBR133	TRO
Stafford Co./R-Board Sanitary Landfill	074	NVRO
Taylor Road Landfill	270	PRO
Tazewell County Sanitary Landfill	564	SWRO
Thrasher CDD Landfill	305	TRO
Tire Recyclers Inc.	PBR142	PRO
TSI Environmental	PBR089	SWRO
USA Waste of Virginia - Fairfax MRF	PBR111	NVRO
USA Waste of Virginia - Leesburg MRF	PBR006	NVRO
USA Waste of Virginia - Sterling MRF	PBR093	NVRO

NVRO - Northern Virginia PRO - Piedmont TRO - Tidewater VRO - Valley SCRO - South Central SWRO - Southwest

<b>Facility</b>	Permit Number	DEQ Region*
VA Beach Sanitary Landfill #2 - Mount Trashmore II	398	TRO
VA Beach Yard Waste Composting Facility	PBR024	TRO
VA Recycling Corp.	PBR039	PRO
Virginia Health Care Waste Transportation Inc.	PBR143	WCRO
Virginia Materials and Supplies Inc.	PBR117	TRO
VPPSA - Essex County Transfer Station	PBR016	PRO
VPPSA - James City County Transfer Station	PBR021	TRO
VPPSA - King William County Transfer Station	PBR017	PRO
VPPSA - Mathews County Transfer Station	PBR018	PRO
VPPSA - Middlesex County Transfer Station	PBR019	PRO
VPPSA - York County Transfer Station	PBR022	TRO
VPPSA - York County YWCF	PBR013	TRO
Waltrip Landfill	322	TRO
Warren County Transfer Station	PBR033	VRO
Washington County Transfer Station	PBR003	SWRO
Waste Management Charles City Landfill	531	PRO
Waynesboro City Sanitary Landfill MSW Balefill	204	VRO
Weaver Industrial Waste Landfill	471	SCRO
Westmoreland County Transfer Station	PBR069	PRO
Wise County Sanitary Landfill	513	SWRO
Wolftrap Operations Inc. Debris Landfill	436	TRO

**Total Number of Facilities Reporting: 203** 

#### \*Regional Offices

NVRO -	Northern Virginia	PRO -	Piedmont	TRO -	Tidewater
VRO -	Vallev	SCRO -	South Central	SWRO -	Southwest

### Attachment 6 Capacity/Disposal Rate Detail for Virginia Landfills in 2001

Facility Type	Permit		Reported Available Capacity 2001	Reported Annual Disposal Rate 2001	Submitted Capacity
Facility Name	Number	County / City	(Tons) <sup>11</sup>	(Tons)	Information?
C/D/D Landfills					
623 C/D/D Landfill	506	Goochland	6,360,000.00	250,788.41	Yes
Ashcake C/D/D Landfill	574	Hanover	1,163,621.40	31,309.20	Yes
Country South	581	Roanoke	65,298.00	30,584.40	Yes
County of Frederick CDD Landfill	591	Frederick	1,730,540.00	36,820.00	Yes
Cox's Charles City Road Landfill	235	Henrico	1,200.00	468.60	Yes
Inc.					
Cox's Darbytown Road Landfill	525	Henrico	247,020.00	98,700.00	Yes
Higgerson-Buchanan Inc.	493	Chesapeake	518,256.00	103,651.20	Yes
Hilltop Sand & Gravel Co. Inc. Debris Landfill	326	Fairfax	5,100,000.00	132,156.00	Yes
Indian Trail Disposal Facility	451	Suffolk	170 000 00	97 205 56	Yes
Lorton CDD Landfill - Furnace	331	Fairfax	178,888.00 5,100,000.00	87,395.56	Yes
Potomac Landfill	441	Prince William	809,016.00	1,155,035.85 506,314.31	Yes
	516	Chesterfield	900,000.00	126,334.40	Yes
Qualla Road Demo Landfill Rainwater Concrete Co. Landfill	327	Fairfax	1,188,000.00	50,310.00	Yes
Shoosmith Debris Landfill	327 377	Chesterfield	0.00	0.00	Yes
	524	Henrico	348,990.00	69,798.00	Yes
Simons Hauling Debris Landfill	524 270	Chesterfield		94,324.80	Yes
Taylor Road Landfill Thomas Brothers Debris Landfill			568,920.00	94,324.60	
	445	Roanoke	150,000,00	122 775 90	No
Thrasher CDD Landfill	305	Chesapeake	150,000.00	132,775.80	Yes
Waltrip Landfill	322	James City	12,000.00	3,514.20	Yes
Wolftrap Operations Inc. Debris Landfill	436	York	116,713.20	58,329.60	Yes
Number of C/D/D Landfills:		20 Totals:	24,558,462.60	2,968,610.33	
Remaining permitted CDD Capacity				8.3 years	
Non-Captive Industrial L	andfill	S			
First Piedmont Corp Martinsville	065	<u>≃</u> Pittsylvania	780,000.00	213,210.23	Yes
Landfill					
Holland Enterprises Landfill	280	Suffolk	5,317,200.00	158,758.20	Yes
Weaver Industrial Waste Landfill	471	Lunenburg	0.00	4,681.00	Yes
Number of Non-Captive Industrial L	andfills:	3 Totals:	6,097,200.00	376,649.43	
Remaining permitted Non-Captive I	ndustrial (	Capacity		<b>16.2</b> years	
Sanitary (MSW) Landfill	<u>s</u>				
Accomack County Sanitary Landfill Bobtown South	091	Accomack	276,000.00	18,000.00	Yes
Accomack County Sanitary Landfill Northern Site #2	461	Accomack	307,500.00	21,789.00	Yes
Amherst County Sanitary Landfill	563	Amherst	672,500.00	25,924.93	Yes
Appomattox County Sanitary Landfill	086	Appomattox	43,665.50	9,927.00	Yes

 $<sup>^{11}</sup>$  Facilities reported available capacity in tons, cubic yards, and acres. The available capacity has been estimated using the following conversion factors: 1000 lbs. pounds of MSW = 1 cu. yd.; 1200 lbs. of CDD waste = 1 cu. yd.; 1 acre reported capacity = 126,600 cu. yd. If a facility failed to provide an estimated available capacity, that number has been interpolated from the total annual disposal rate and the expected remaining permitted life, as reported by the facility.

Facility Type	Permit		Available Capacity 2001	Disposal Amount 2001	Submitted Capacity
Facility Name	Number	County / City	(Tons)	(Tons)	Information
Atlantic Waste Disposal Sanitary Landfill	562	Sussex	7,924,357.00	1,527,875.74	Yes
Augusta County / Staunton Sanitary Landfill No. 2	585	Augusta	726,313.00	117,931.72	Yes
Augusta County Service Authority Sanitary Landfill	021	Augusta	0.00	0.00	Yes
Bedford County Sanitary Landfill	560	Bedford	461,500.00	42,683.00	Yes
BFI Old Dominion Sanitary Landfill	553	Henrico	2,866,000.00	529,015.11	Yes
Big Bethel Sanitary Landfill	580	Hampton	24,654,982.50	447,623.48	Yes
Botetourt County Sanitary Landfill	582	Botetourt	211,000.00	25,010.96	Yes
Bristol Quarry Balefill	588	Bristol	3,850,000.00	177,961.09	Yes
Brunswick Waste Management Facility	583	Brunswick	8,750,000.00	874,858.00	Yes
Campbell County Sanitary Landfill	285	Campbell	1,598,818.25	40,269.00	Yes
Caroline County Sanitary Landfill	182	Caroline	1,000.00	4,888.03	Yes
Carroll-Grayson-Galax Regional Sanitary Landfill	508	Carroll	459,815.00	45,940.73	Yes
City of Bedford (Hylton Site)	569	Bedford City	190,000.00	8,865.00	Yes
Corral Farm Sanitary Landfill	575	Fauquier	2,500,000.00	69,583.00	Yes
Craney Island Landfill	041	Portsmouth	1,123,922.00	25,582.00	Yes
Fauquier County Sanitary Landfill	149	Fauquier	430,000.00	71,592.00	Yes
Fluvanna County Sanitary Landfill	429	Fluvanna	156,000.00	10,577.92	Yes
Franklin County Sanitary Landfill	072	Franklin	457,424.50	51,318.48	Yes
Frederick County Sanitary Landfill	529	Frederick	1,848,750.00	123,250.51	Yes
Greensville County Sanitary	405	Greensville	241,860.00	24,186.00	Yes
Hanover County Sanitary Landfill	314	Hanover	36,000.00	36,000.00	Yes
I-95 Sanitary Landfill	103	Fairfax	2,700,000.00	365,213.69	Yes
Independent Hill Sanitary Landfill	029	Prince William	6,000,060.00	279,207.00	Yes
Ivy Sanitary Landfill	125	Albemarle	0.00	39,277.00	Yes
King and Queen Sanitary Landfill	554	King and Queen	25,350,000.00	682,058.47	Yes
King George County Sanitary Landfill and Recycling Facility	586	King George	19,500,000.00	1,683,614.80	Yes
Livingston Sanitary Landfill No. 2	547	Spotsylvania	1,572,500.00	50,319.49	Yes
Loudoun County Sanitary Landfill	001	Loudoun	11,700,000.00	16,132.00	Yes
Louisa County Sanitary Landfill	194	Louisa	1,076,100.00	20,805.00	Yes
Lunenburg County Sanitary	227	Lunenburg	305,770.00	31,111.30	Yes
Lynchburg Sanitary Landfill	558	Lynchburg	1,990,650.00	148,078.00	Yes
Maplewood Recycling & Waste Disposal Facility	540	Amelia	22,500,000.00	302,968.61	Yes
Martinsville Sanitary Landfill	049	Martinsville	1,631,545.00	98,719.00	Yes
Mecklenburg County Sanitary Landfill	014	Mecklenburg	350,000.00	46,628.00	Yes
Mid-County Sanitary Landfill - Montgomery County	397	Montgomery	0.00	117.00	Yes
Middle Peninsula Sanitary Landfill and Recycling Center	572	Gloucester	20,925,534.00	544,926.37	Yes

2,700.00  3,000.00 2,930.00 5,211.40 0,000.00 5,106.50 0,500.00 0,970.00 4,970.00 0,000.00	17,397.00  18,743.58  330,350.00  28,521.10  90,623.50  11,471.78  11,785.00  40,485.00  25,616.67  4,984.00  65,808.00  47,533.00	Yes
3,000.00 2,930.00 5,211.40 0,000.00 5,106.50 0,500.00 0,970.00 4,970.00 0,000.00	18,743.58 330,350.00 28,521.10 90,623.50 11,471.78 11,785.00 40,485.00 25,616.67 4,984.00 65,808.00	Yes
2,930.00 5,211.40 0,000.00 5,106.50 0,500.00 0,970.00 4,970.00 0,000.00	330,350.00 28,521.10 90,623.50 11,471.78 11,785.00 40,485.00 25,616.67 4,984.00 65,808.00	Yes Yes Yes Yes Yes Yes Yes Yes Yes
5,211.40 0,000.00 5,106.50 0,500.00 0,970.00 5,000.00 4,970.00 0,000.00	28,521.10 90,623.50 11,471.78 11,785.00 40,485.00 25,616.67 4,984.00 65,808.00	Yes Yes Yes Yes Yes Yes Yes Yes
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5,106.50 0,500.00 0,970.00 5,000.00 4,970.00 0,000.00	11,471.78 11,785.00 40,485.00 25,616.67 4,984.00 65,808.00	Yes Yes Yes Yes Yes Yes
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0,970.00 5,000.00 4,970.00 0,000.00 0,096.50	40,485.00 25,616.67 4,984.00 65,808.00	Yes Yes Yes
5,000.00 4,970.00 0,000.00 0,096.50	25,616.67 4,984.00 65,808.00	Yes Yes Yes
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9,096.50		
	47,533.00	Yes
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5,000.00	101,851.34	Yes
),230.00	16,092.00	Yes
),000.00	39,815.00	Yes
1,917.00	1,210,275.20	Yes
7,022.00	134,631.00	Yes
),999.46	48,499.91	Yes
0,000.00	82,210.00	Yes
5,591.69	673,457.00	Yes
0.00	67,306.00	Yes
5,241.00	46,542.16	Yes
5,000.00	37,783.00	Yes
),000.00	631,117.01	Yes
1,842.27	3,228.18	Yes
7,214.20	52,569.91	Yes
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